

Running head: GRADUATE MANAGEMENT PROJECT

**Case Study: Organizational Realignment
At Tripler Army Medical Center to Reflect “Best Business Practice,” Facilitate
Coordinated Care, and Maximize the Use of Resources**

A Graduate Management Project
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ABSTRACT

As Tripler Army Medical Center (TAMC) moves in the direction of a business case model to address fiscal concerns, it is exploring opportunities to improve the way in which it manages finances. At the direction of the medical center's chief of staff, a Business Process Reengineering Process Action Team (BPR-PAT) was established to evaluate Tripler's Utilization Management, Resource Management, Managed Care, Patient Administration, Information Management, and Clinical Support divisions to maximize billing, eliminate duplicative functions, simplify processes, improve data quality, and reduce costs. The purpose of this GMP is to provide a descriptive case study of the BPR-PAT's efforts and proposal to realign TAMC's organizational structure to reflect "best business practice" that will facilitate coordinated care and maximize the use of resources.

The BPR-PAT proposal directs that TAMC's Managed Care Division be reorganized into Data Quality Management, Decision Support, and Customer Services Branches, and that the Managed Care Division be realigned to report to the Deputy Commander for Administration (DCA) instead of to the Deputy Commander for Clinical Services (DCCS). A fourth branch, Health Care Utilization, will be reorganized within TAMC's Quality Services Division.

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1. INTRODUCTION

With the approach of the twenty-first century, the US health care industry has been changing rapidly in response to the growing need to proficiently administer limited and precious resources. Much of this change has come about through the growth of what the industry calls “managed care,” which has come to dominate the health care landscape. Managed care can be described as a health reform strategy that attempts to “manage” physician and patient behavior through various financial and administrative mechanisms that integrate the financing and delivery of medical care. (Priester, 1997) As a result, several major shifts occurred during the 1990s. There have been shifts from inpatient hospital to outpatient ambulatory services, from specialty to primary care, and from stand-alone hospitals to networks. There is now greater emphasis on measuring clinical outcomes and better management of information. (Cochrane, 1995) Market forces driving these changes in health care organizations are many, including shifting demographics, new technologies, regulatory changes, purchaser demands for measurable, verifiable treatment outcomes and increased consumer desire for quality and cost management.

The tremendous growth of managed care with its emphasis on radically changing the business of health care, has necessitated that health care managers seek solutions from the business and corporate world. (Davis, Williams, & Frank, 1996) One lesson learned from the business world is that not only has change become rapid, but also the nature of change has itself changed. “Foremost, change has become both pervasive and persistent. It is normality.” (Hammer & Champy, 1993, p.23) To achieve the desired organizational change in response to environmental pressures to increase productivity and reduce costs,

hospitals have turned to both continuous quality improvement (CQI) and business process reengineering (BPR). (Davis et al., 1996) Popularity appears to be shifting from CQI to BPR. Whereas CQI looks at improving existing processes, reengineering questions the very existence of processes. Some believe that the reengineering approach can be especially useful for academic medical centers attempting to balance and maintain their commitments to patient care, research, and education. (Marsh, Guanciale, & Simon, 1995)

Changes similar to those in the civilian sector, are also occurring in the U.S. Military Health System (MHS) to include Tripler Army Medical Center (Tripler AMC), Oahu, Hawaii. In its reengineering of the Military Health System (MHS), the Department of Defense (DOD) entered the world of managed care in 1993 with TRICARE (its triple option managed care benefit). The DOD introduced TRICARE in response to the challenge of maintaining medical combat readiness while providing the best health care for all eligible personnel.

TRICARE is a regionally managed health care program for active duty and retired members of the uniformed services, their families, and survivors. TRICARE brings together the health care resources of the Army, Navy, and Air Force and supplements them with networks of civilian health care professionals to provide better access and high quality service while maintaining the capability to support military operations. TRICARE is being implemented throughout the U.S., Europe, Latin America and the Pacific as a way to increase access to health care, control the costs of health care, and increase beneficiary satisfaction with the military health care system. (TRICARE Management Activity [TMA], 1999a)

Tripler Army Medical Center

Description and Demographics

Located just eight miles from Waikiki on the beautiful island of Oahu, Tripler Army Medical Center (Tripler AMC) is the largest military medical treatment facility in the Pacific. The main hospital sits atop Moanalua Ridge on 1.8 million square feet of land overlooking Honolulu and Pearl Harbor. Operationally, logically, and administratively, Tripler's role in the Pacific is very complex. Its boundaries overlap multiple services, agencies, and Army command and control relationships. As part of the Army Medical Department's (AMEDD) Pacific Regional Medical Command, Tripler's service region includes Hawaii, Japan, Johnston Atoll, Guam, Eniwetok, Kwajalein, various Pacific Island Nations, and American Samoa. Tripler provides both inpatient and outpatient care to approximately 240,000 individuals, including active duty beneficiaries of all the military services, family members of active duty personnel, retirees and their families, and Department of Veterans Affairs beneficiaries. In addition, Tripler supports an enormous referral population of approximately 525,000 military personnel and their families in the U.S. Pacific Command, citizens from Pacific Island Nations, and VA referrals. All in all, close to 800,000 ethnically diverse and geographically dispersed individuals are eligible for care at the Army's only teaching medical center not located on the U.S. mainland. For Fiscal Year 1999, Tripler AMC had a \$117 million budget, was staffed by 2,650 personnel, and provided 250 hospital beds with a wartime expansion capability to more than 400 beds. (R. D. Tenhet, personal communication, November 22, 1999, Joint Commission, 1997, and Tripler Army Medical Center, 2000)

Other Major Operations

In addition to the main hospital, Tripler AMC operates the Army's largest outpatient medical treatment facility, the U.S. Army Health Clinic at Schofield Barracks twenty miles away. Tripler AMC also provides administrative and logistical support to the U.S. Army Dental Activity – Hawaii, the U.S. Army Forensic Toxicology Drug Testing Laboratory, and the Pacific Regional Veterinary Command (that provides veterinary support and the administration of a sanitary inspection program throughout the Pacific Basin).

Staff, Affiliations and Allied Programs

Tripler's staff of 2,650 is approximately half civilian and half military personnel. The staff includes approximately 360 physicians, 370 registered nurses, and over 1,800 support personnel. As a result of military rotations, the vast majority of the hospital's military staff rotates every three to four years, including the leadership team.

Tripler is a major teaching center that provides graduate education programs to more than 500 students annually. More than 180 residents, interns, and fellows train in medicine, general surgery, otolaryngology, orthopedic surgery, psychiatry, pediatrics, obstetrics and gynecology, radiology, pathology, urology, oral surgery, and general dentistry. In addition Tripler has programs in hospital administration, nurse anesthesia, and obstetrics and gynecology nursing. Tripler also administers and supervises affiliation programs of numerous clinical specialties with the Uniformed Services University of Health Sciences, the University of Hawaii, and other accredited universities. (R. D. Tenhet, personal communication, November 22, 1999)

In addition to the medical center, Tripler's Commanding General, Major General Nancy R. Adams, also commands the Army's Pacific Regional Medical Command, an intermediate headquarters between Tripler AMC and U.S. Army Medical Command. Pacific Regional Medical Command's span of control extends beyond Tripler AMC (with its large satellite outpatient clinic at Schofield Barracks) to include the Pacific Regional Program Office and the Center for Excellence in Disaster Management and Humanitarian Assistance (both located at Tripler AMC), as well as the U.S. Army Medical Activity at Camp Zama, Japan.

Tripler AMC is involved in numerous joint venture projects with the Department of Veterans Affairs Medical & Regional Office Center (VAMROC) in Honolulu. The two federal health care organizations work closely together to recoup excess costs by avoiding duplication of services and benefiting from economies of scale. In 1999, the VAMROC administrative staff offices co-located with Tripler on Moanalua Ridge in one of the hospital's renovated wings. In 2000, VAMROC opened its new 50,000 square foot Department of Veterans Affairs Ambulatory Care Clinic immediately adjacent to Tripler AMC.

Queen's Health Care Plan (QHCP) of Hawaii, in partnership with Foundation Health Systems of California, manages the civilian TRICARE provider network and coordinates the referral process to the network for Tripler AMC. This is done through a comprehensive managed care contract implemented in April 1996. The TRICARE Pacific Lead Agency has responsibility for administration and management of the managed care contract in Hawaii, as well as for network development and management in Alaska and the western Pacific region (WestPac).

As part of the Military Health System (MHS), Tripler AMC has a finite capability to provide health care to its beneficiaries. When Tripler cannot provide health care within DOD-specified timeframes, the civilian TRICARE network assumes responsibility to provide this care. This network not only acts as an important safety net in time of deployment of the military medical force, but serves to provide health care beyond Tripler's capabilities during peacetime as well. Often, more cost-effective alternatives to network care are available to Tripler, the TRICARE Pacific Lead Agency, and QHCP. Such alternatives are analyzed in Tripler's Managed Care Division Business Case Analysis Branch.

Mission, Vision and Values

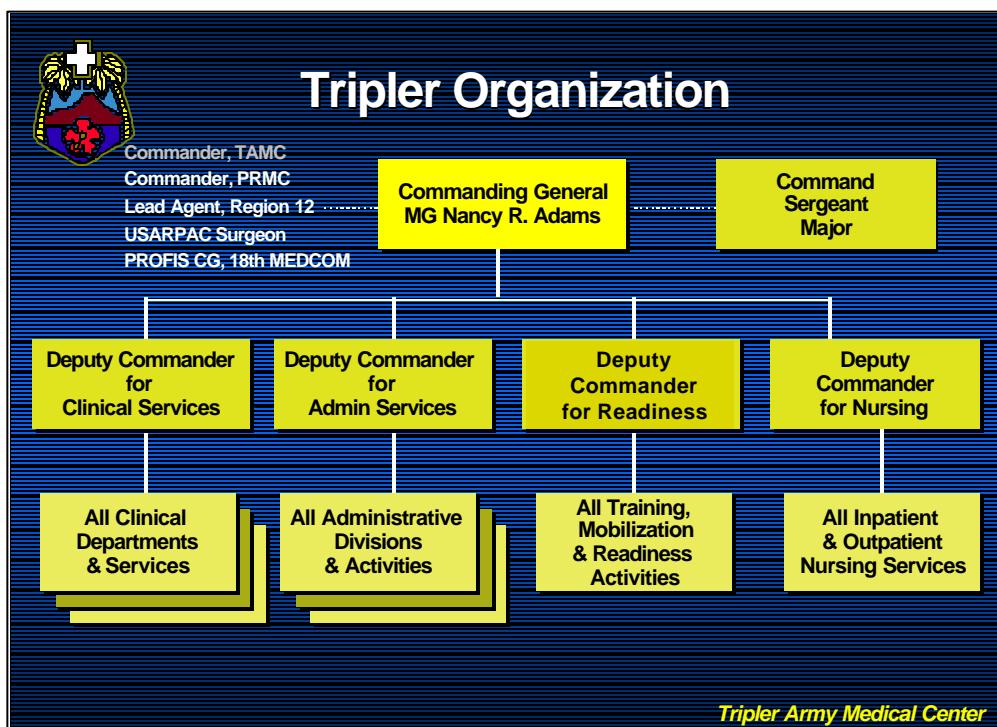
Tripler's mission is "To ensure readiness through the delivery of quality healthcare." Based on its role as a military medical treatment facility, the three components of readiness are to deploy a healthy force, deploy a trained and ready medical force, and manage the care of beneficiaries. Tripler's commander, Major General Nancy R. Adams (2000), translates these three components of readiness to mean,

- "provide preventive medicine to make sure the force is fit and ready to fight,
- provide adequate training to the medical staff who is going to deploy thereby giving them two full-time jobs simultaneously—keep all clinical skills current, and, oh by the way, make sure your rucksack is packed and your weapons qualification is current, and
- make sure those beneficiaries who don't—like families and retirees—have quality healthcare available while parts of the force are gone."

In a graphical representation of Tripler's mission, with readiness at the center (Figure i), the three components of readiness flow from a foundation based on education, training, and values. (Tripler Army Medical Center, 1998)

Figure i - Graphical Representation of Tripler's Mission:

The readiness mission is also reflected in Tripler's organizational structure with a Deputy Commander for Readiness reporting directly to the Commander alongside Deputy Commanders for Clinical Services, Nursing, and Administration (Figure ii).

Figure ii – Tripler's Organizational Structure

Additionally, more than 600 Tripler staff members are also PROFIS (Professional Filler System) staff ready to deploy at a moment's notice when the need arises in South Korea and on humanitarian and emergency missions in the Pacific Basin.

Tripler's vision is "Our commitment to readiness and the needs of those we serve will set the standards for quality, efficiency and access." Tripler's "values encompass the Army's Core Values of Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage (LDRSHIP), and those of the AMEDD [Army Medical Department], Candor, Commitment, Compassion, Competence, and Customer Focus." (Tripler Army Medical Center, 1998)

Organizational Culture

Tripler AMC prides itself on providing excellent health care to its eligible population while never losing sight of its primary goal of readiness. This excellence was recently validated when Tripler scored "100" during its accreditation survey by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) in December 1998. Tripler distinguished itself as the first medical center in the entire Department of Defense inventory to achieve a perfect score of 100.

Total Quality Management (TQM) is Tripler's philosophy for continuously striving to improve patient care and services. The hospital's Performance Improvement Program, TAMC Reg. 40-4, (1997) states how Tripler plans for quality, measures key aspects of service on an ongoing basis, and prioritizes special areas in which to make improvement. As stated in Tripler's Staff Information Guide (1998), Tripler's definition of quality is "meeting or exceeding our customers' needs and expectations by continuously improving

the process of care.” Tripler subscribes to the belief that the customer defines quality.

The quality philosophy is reflected in Tripler’s decision making process. Although Tripler’s Commanding General has final authority, she relies heavily on a decision making body composed of the hospital’s senior leadership, the Performance Improvement Council (PIC). The PIC functions as the Executive Committee of the Hospital. As stated in its mission statement, the PIC conducts an ongoing review of the Tripler Strategic and Operational Plans in view of new opportunities and challenges, and proposes modifications accordingly. It evaluates proposed major initiatives, reviews and approves requirements for resource allocation and structural changes to support those initiatives, and establishes priorities. (Joint Commission, 1997, and J. W. Henry, personal communication, January 17, 2000)

In addition to the Commander, the members of the PIC include Tripler’s Executive Group (the Deputy Commanders for Clinical Services, Administration, Readiness, and Nursing, and the Command Sergeant Major), Tripler’s product line chiefs, the directors of the Quality Service, Resource Management, Managed Care, and Health, Education & Training Divisions, and the leaders of eight Functional Management Teams (FMT), corresponding to JCAHO’s functional areas of assessment. The various FMTs aid in developing strategic and operational plans, act as JCAHO subject matter experts, charter and receive reports from Process Action Teams (PAT), and refer reports and recommendations to the PIC for action. PATs are interdisciplinary, normally consist of five to ten individuals, and address a specific opportunity for a process improvement. The teams use the FOCUS-PDCA (Find, Organize, Clarify, Understand, Select—Plan, Do, Check, Act) method to approach process improvement. (Joint Commission, 1997,

and J. W. Henry, personal communication, January 17, 2000)

Conditions Which Prompted the Study

In his recent address to a group of MHS business managers, Dr. H. James T. Sears (1999, slides 10-13) delineated seven imperatives for military health care's TRICARE system:

1. "Make TRICARE work in support of readiness
2. Surpass members' expectations—be the preferred health plan provider for military families
3. Move smartly to population health—highest quality care system
4. Optimize MTF capacity and recapture care
5. Work as tri-service team with contractors as teammates
6. Be recognized as the world's leading integrated health system
7. Move smartly to best business practices—be competitive"

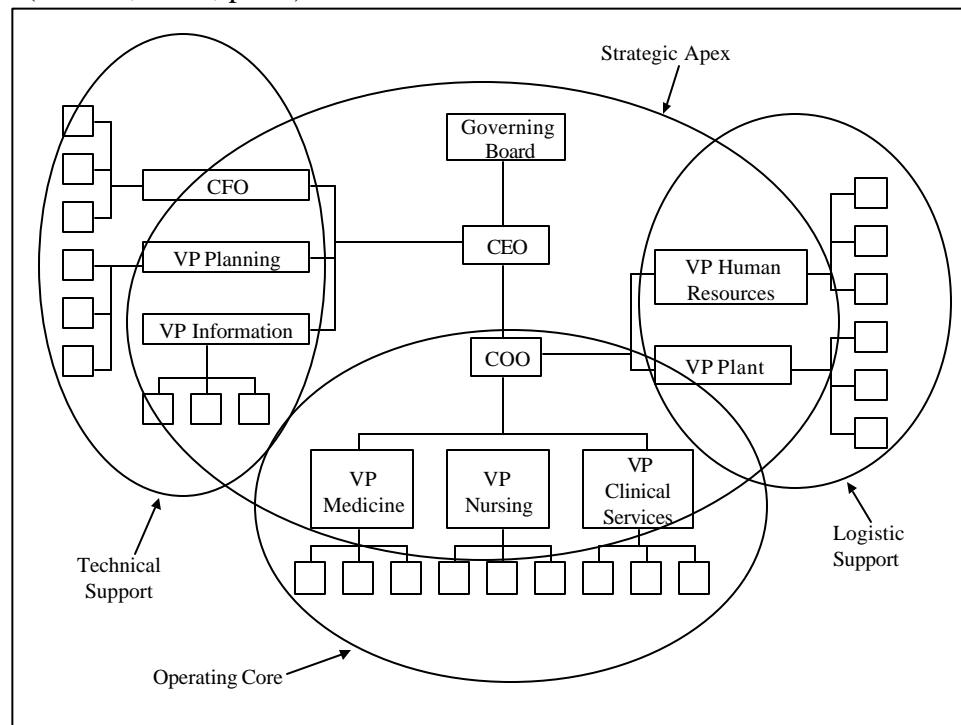
Dr. Sears identified best business practices as requiring improvements in data quality, workload standardization, improved access, and claim simplification. These imperatives did not go unnoticed at Tripler Army Medical Center. Of particular interest to the administrative and business sections at Tripler, the seventh imperative implores the MHS to "move smartly to best business practices."

Although military medical treatment facilities historically rely largely on a fixed budget process, there are modern realities dictating that MTFs justify their costs. As Tripler continues to move in the direction of a business case model to address fiscal concerns, it must explore opportunities to improve the way it manages finances. Revenue is the driving force in a business case model. Currently, Tripler's biggest revenue generator is its reimbursable program, accounting for almost 20% of the total operating budget. As Tripler strives to more effectively manage the financial aspects of how it does

business, it is imperative for the organization to explore opportunities as they arise. (R. D. Tenhet, personal communication, November 17, 1999) In addition, cost savings initiatives cannot be forgotten as mechanisms are put in place to generate added revenue. Smart changes in business processes at Tripler AMC must be made so that the goals and expectations of the organization, and the needs of its beneficiary population, are met.

Recently the Tripler AMC leadership voiced concern that business processes in several divisions may have areas of inefficiency, duplication, and/or ambiguous lines of control. These processes are found largely in the organization's technical support system of finance, planning, marketing, and information services. These technical services support the strategic and product line units and are essential to the operation of such a large-scale organization. Griffith (1995) defines this technical support system as one of five major organizational systems in his modification of Mintzberg's organizational structure model. (Figure iii)

Figure iii - Modification of Mintzberg's Organizational Structure Model
(Griffith, 1995, p187)



The processes targeted for radical improvement at Tripler include data quality, data and business case analysis, non-DOD beneficiary billing, utilization management, and TRICARE marketing/education and customer services. At Tripler, these technical support services and processes are performed in the Managed Care, Clinical Support, Resource Management, Patient Administration, Information Management, and Quality Services Divisions.

In short, Tripler's Commanding General (CG) and other internal customers are at times uncertain who the process owner is for desired information and/or analysis. Specifically, the CG asks, "Do we have the best financial model in place to improve the efficiency and effectiveness of our managed care approach at Tripler?" (R. H. Tenhet, personal communication, November 17, 1999) The CG directed that a Process Action Team be established to provide her with a proposal to realign the organizational structure to reflect "best business practice" that will facilitate coordinated care and maximize the use of resources.

Statement of the Problem

How will Tripler Army Medical Center realign its organizational structure to reflect "best business practice" that will facilitate coordinated care and maximize the use of resources?

Literature Review

It is common for health care organizations to participate in managerial innovations that promise to revolutionize their operations. Such management techniques

have over the years included management by objectives, quality circles, continuous quality improvement, total quality management, and reengineering. (Meisenheimer, 1997, Walston & Bogue, 1999) Quality management can be thought of as an overarching term comprising quality assessment, quality improvement, and reengineering. Quality assessment is the traditional core of monitoring and evaluation through structure, process, and outcome measures. Quality improvement techniques are used by organizations to gain incremental improvements. Reengineering stands out from other management techniques for effecting organizational change by addressing the redesign of basic processes rather than gradually improving them. (Hammer & Champy, 1993, Hammer & Stanton, 1995, and Meisenheimer, 1997) Similar to management by objectives, the O-M-R Model is a leadership strategy taught at the Center for Army Leadership. (Center for Army Leadership, 1997)

Total Quality Management/Continuous Quality Improvement

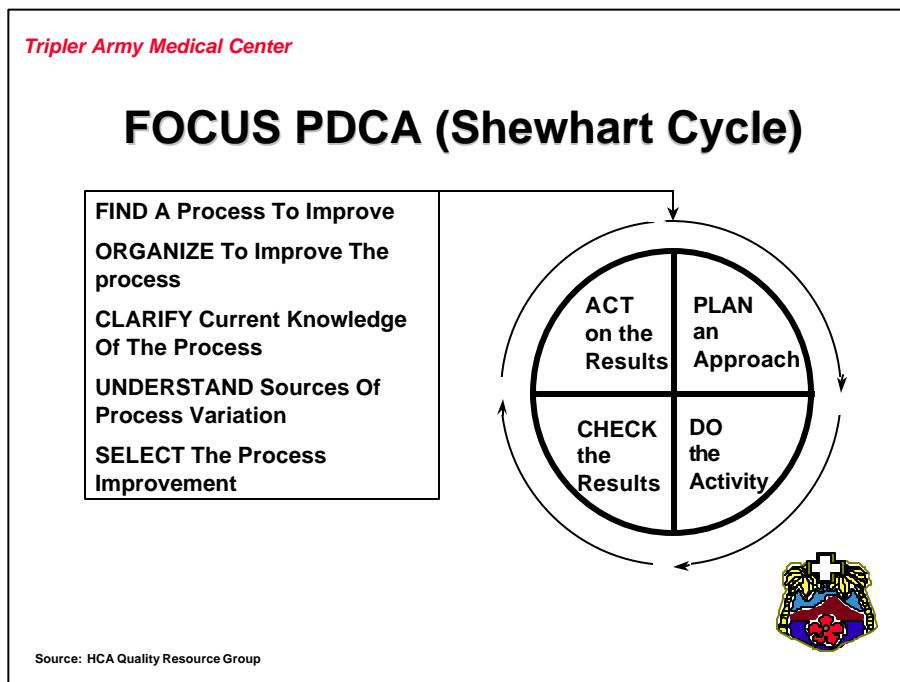
The rapid and substantial changes occurring in the health care industry produce a paradigm shift in thinking and behaving. New thinking and behaving requires health care organizations to be learning environments. Such learning organizations continually seek improvement. Total quality management (TQM) is a philosophical approach to participatory management and the advancement of learning in an organization. Focusing on internal and external customers, TQM requires a continuous quality improvement (CQI) perspective in all of the processes of the organization. (Joint Commission, 1997, and Meisenheimer, 1997)

The TQM philosophy guides performance improvement efforts at Tripler AMC. Tripler applies quantitative methods and the knowledge of those people actually doing the work to continually assess and improve materials and services supplied to the organization and all the significant processes within the organization in order to meet or exceed the needs of the customer. (J. W. Henry, personal communication, October 5, 1999, and Joint Commission, 1997)

The FOCUS-PDCA Model for Process Improvement

The framework utilized in the implementation of TQM/CQI principles at Tripler is the FOCUS-PDCA model (Find, Organize, Clarify, Understand, Select—Plan, Do, Check, Act) for process improvement. (Figure iv).

Figure iv - The FOCUS—PDCA Model for Process Improvement:



This model is an elaboration of the Plan-Do-Check-Act cycle (PDCA), or Shewhart cycle, which was introduced as the Deming Cycle in Japan. (Griffith, 1995, Joint

Commission, 1997, and Meisenheimer, 1997) A basis for success of this quality management philosophy is the organizational leadership's visible commitment to quality. The FOCUS—PDCA model entails: *Finding* a process for improvement, *Organizing* a team that knows the process, *Clarifying* current knowledge of the process, *Understanding* sources of process variation, and *Selecting* the desired process improvement. The team then: *Plans* an approach, *Does* the improvement, data collection, and analysis, *Checks* the results and lessons learned, and *Acts* to hold the gain.

(M. H. Graham, personal communication, January 13, 2000, and Meisenheimer, 1997)

Business Process Reengineering of Health Care Organizations

Business process reengineering (BPR) is a rather new management tool that gained wide dissemination with the publication of Michael Hammer and James Champy's book, *Reengineering the Corporation: A Manifesto for Business Revolution*, in 1993. Propelling corporations worldwide into reengineering, their monumental bestseller defines *reengineering* as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality, service, and speed." (Hammer & Champy, 1993, p.32) Manganelli and Klein similarly define reengineering as "the rapid and radical redesign of strategic, value-added business processes—and the systems, policies, and organizational structures that support them—to optimize the work flows and productivity in an organization. (Manganelli & Klein, 1994) Reengineering undoubtedly is the most discussed new business concept to enthrall managers everywhere during the 1990s.

The concept of reengineering has not left health care organizations untouched, as is evident in the recent health care management literature. A number of recent articles and text chapters are devoted to the subject of business process reengineering (BPR) efforts in health care organizations. (Carmichael, 1994, Davis et al., 1996, Foerster, 1994, Kohn, 1994, Miller, 1995, Cochrane, 1995, Marsh, Guanciale & Simon, 1995, Stickler, 1996, Cathcart, 1997, Guillett, 1998, Ho, Chan, & Kidwell, 1999, Neuman, Malloch, & Ruetten, 1999, and Walston & Bogue, 1999) Kohn (1994) and Cochrane (1995) go so far as to instruct that market pressures in health care leave the industry with little choice but to view BPR as an ongoing, continuous process of operational change. The theory is that the organizations with the best prospects for success are those that reengineer before they are in trouble financially.

Successful reengineering efforts have certain elements in common. Reengineering dramatically improves performance, focuses on process rather than individual tasks, shatters assumptions based on conventional wisdom, creates a new context for doing business, eliminates complexity, leverages information technology, and focuses on the customer. (Davis et al., 1996) Kohn (1994) advises the use of a structured methodology that clearly defines goals, deliverables, and measurements to determine completion. Guillett (1998) points out that successful BPR must focus on simultaneously improving integration, operating performance, and customer satisfaction.

Although reengineering became quite widespread in health care organizations during the 1990s, it has now begun to lose some of its attraction for many executives. In a 1997 nationwide American Hospital Association survey (of U.S. nonspecialty, short-term acute care hospitals with more than 100 beds-in-service and located in an urban

setting), Walston & Bogue (1999) found hospitals can improve their competitive position through reengineering, but only with proper leadership, structure, and process. Although their results revealed no statistically significant evidence of widespread improvements in cost competitiveness as a result of reengineering, there clearly was a noticeably improved cost position for an outlying group of hospitals two years after reengineering.

One recent study by Ho, Chan, & Kidwell (1999) assessed and compared the extent of process engineering initiatives in U.S. and Canadian hospitals. It identified factors that influence hospital management's decision to start a reengineering program and analyzed the reasons why BPR programs fail. The authors conducted a survey on a randomly selected sample from 1,111 hospitals in the US and Canada. CEOs of 19.4% (216) of these hospitals responded in Spring 1997. Hospital executives who responded to the survey had a fairly positive experience with BPR, expect more BPR involvement in the future, and feel that BPR is effective in improving service quality, financial performance, and clinical performance.

Barriers to reengineering reported in the survey were lack of employee cooperation (because BPR is viewed as job cutting), lack of buy-in from medical staff, insufficient staff training and skill development on BPR, and poor planning. Other potential barriers identified by the authors were organizational resistance to change, unrealistic expectations, and inadequate project management. The findings reinforce the view that successful BPR requires both top management commitment as well as a bottom-up approach that ultimately places decision making at the place in the organization where the work is performed. (Ho, Chan, & Kidwell, 1999)

Health care managers find that other management techniques, such as total quality

management (TQM), continuous quality improvement (CQI), and benchmarking, are important supplements to BPR. (Meisenheimer, 1997, Ho, Chan, & Kidwell, 1999) It has been found in other industries that the more radical a BPR project is, the more successful it is likely to be. In addition, the data from the Ho, Chan, & Kidwell (1999) survey indicate that BPR is more likely to succeed if those leading the change consider its human and organizational implications and devote attention to the social elements of the changes as well as to the technical. The authors feel that “wiping the slate clean” through radical reengineering creates a host of “social” problems that present special challenge in implementation. Finally, they note the importance of designing and installing a rigorous performance measurement and information system to support BPR activities.

O-M-R Model: A Leadership Strategy

The O-M-R Model is a simple, realistic strategy for approaching leadership decisions, plans, and meetings. (Center for Army Leadership, 1997) Developed by observing how successful leaders approach their work, the model involves considering *outcomes* first, then *methods*, and finally *resources* (Table i), as the acronym O-M-R suggests. The strength of the model lies in this particular sequencing of the three factors. People will often block any organizational progress or movement toward solution by raising objections based on how it will be done (methods) or based on the budget (resources). And this usually occurs prior to everyone having a clear understanding of exactly what outcomes are desirable. If the desired outcomes are what the organization truly needs for success, then “O” should drive the approach to “M” and “R.” Otherwise “outcomes” become constrained by methodology and budgets.

Table i – The O-M-R Model: A Leadership Strategy

OUTCOMES	<i>What do we want to happen? What result are we looking for? What goals and objectives are we aiming to meet? What will “success” look like? What are we trying to do? What are we looking for? What is our purpose?</i>
METHODS	<i>How should we do it? What’s the best possible method? What are some alternative methods? What system or approach do we use?</i>
RESOURCES	<i>Which of our people should do it? How much money do we need? How much time will it take? How many people will it require?</i>

(Center for Army Leadership, 1997, p.90)

Some may feel that “methods” and/or “resources” should be determined first, so that then it can be determined what the organization ought to do. However, an organization by definition has a common purpose expressed in a mission, goals, and objectives. Certain outcomes are therefore necessary to fulfill that mission. According to the O-M-R Model, it is important that the desired outcomes drive first the methods, which then drive the resources required. If it is clear enough what must be done and the desired results are known, then the organization may find a new method of operating, and may use its staffing and financial resources more wisely.

Case Study Research

Case studies are empirical inquiries that investigate contemporary phenomena within their real-life contexts. The case study is one of several accepted methods for doing social science research. Other accepted methods include experiments, surveys, histories, and the analysis of archival information. Each of these methods has particular

advantages and disadvantages depending on the form of the problem statement, the amount of control that the researcher has over actual behavioral events, and whether the study focuses on contemporary or historical events. (Yin, 1994) According to Yin (1994, p.1), “case studies are the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context.”

Case studies have a distinctive place in evaluation research. Five different case study applications are explaining causal links in complex real-life interventions, describing an intervention and the real-life context in which it took place, illustrating topics within an evaluation, exploring situations where an intervention has no clear, single set of outcomes, and finally, studying through meta-analysis. (Yin, 1994) Case studies’ usefulness is in their emphasis on full contextual analysis of particular situations, conditions, and their interrelationships. Their detail and utilization of multiple sources of information allow evidence to be verified, and avoid missing data. Case studies have a scientific role in challenging theories and providing sources for new hypotheses and constructs. (Cooper and Schindler, 1998, and Yin, 1994) Case studies are valuable to managers as the studies’ “emphasis on detail provides insight for problem solving, evaluation, and strategy.” (Cooper and Schindler, 1998, p.133)

Health care managers often use case studies as a tool for learning to make strategic decisions for health care organizations. Such case studies are used in organizational and management research studies, and form an integral part of strategic management, financial management, and other health care management texts. (Gapenski, 1996, Ginter, Swayne, & Duncan, 1998, Shortell & Kaluzny, 1994, Yin, 1994, and

Zelman, McCue, & Millikan, 1998) Case studies allow a greater understanding of the complex social phenomena that occur during organizational and managerial processes.

Purpose

The purpose of this Graduate Management Project is to provide a descriptive case study of how Tripler Army Medical Center will realign its organizational structure to reflect “best business practice” that will facilitate coordinated care and maximize the use of resources.

2. METHOD

A case study was conducted to describe the process and results of Tripler Army Medical Center's efforts to plan a realignment of its organizational structure to reflect "best business practice," facilitate coordinated care, and maximize the use of resources. This descriptive case study details the process that Tripler AMC underwent as the organization addressed the need for change in its managed care approach. Tripler sought to redesign the organizational structure of its technical support system (finance, planning, marketing, and information services) so as to reflect best business practice, facilitate coordinated care, and maximize the use of resources. (Griffith, 1995) Essentially this involved Tripler's financial/business functions (business data collection/analysis, business decision support, resource advisory) and customer service processes.

At the direction of the medical center's Chief of Staff, a Business Process Reengineering Process Action Team (BPR-PAT) was established to evaluate Tripler's Utilization Management, Resource Management, Managed Care, Patient Administration, Information Management, and Clinical Support divisions to maximize billing, eliminate duplicative functions, simplify processes, improve data quality, and reduce costs. As per the CG's guidance, the goal and charter of the team was to realign the organizational structure to reflect the "best business practice" that would facilitate coordinated care, maximize the use of resources, and integrate information and finance systems.

This BPR Process Action Team was led by Tripler's Chief of Staff (Deputy Commander for Administration). Team members initially included the proponent of each business area evaluated (Utilization Management, Resource Management, Managed Care, Patient Administration, Information Management, and Clinical Support).

Additionally, the Executive Officer (XO), a nurse case management representative, a billing representative from Patient Administration, Resource Management's Department of Veteran's Affairs (VA) Joint Venture Coordinator, and two administrative residents served on the team. This case study's investigator was assigned to the team as one of the administrative residents and as an unbiased facilitator with the intent of documenting the actions taken by the team. The team members are listed below in Table ii.

Table ii – List of Business Process Reengineering Process Action Team Members

- | |
|--|
| <ul style="list-style-type: none">• Chief of Staff (Deputy Commander for Administration)• Executive Officer (XO)• Chief, Clinical Quality Services Branch (Utilization Management), Quality Services Division (QSD)• Chief, Resource Management Division (RMD)• Chief, Managed Care Division (MCD)• Chief, Patient Administration Division (PAD)• Chief, Information Management Division (IMD)• Chief, Clinical Support Division (CSD)• Chief, Patient Business Services Branch (billing representative), PAD• VA Joint Venture Coordinator, RMD• Nurse Case Manager• Administrative Resident• Administrative Resident—Facilitator |
|--|

The BPR-PAT followed the FOCUS-PDCA model for process improvement, a method with proven success at Tripler and the approach with which Tripler's staff was familiar and accustomed. Using the *FOCUS-PDCA* model (Figure iv), Tripler leadership Found the processes (technical support services) for improvement. A process action team that knew the processes, the BPR-PAT, was *Organized*. The first task of the BPR-PAT was to *Clarify* current knowledge of the processes. They then sought to *Understand* sources of process variation, and *Selected* the desired process improvement. The team

looked for ways to realign the organizational structure so as to facilitate maximized billing, eliminate duplicative functions, simplify processes, improve data quality, and reduce costs. However, because Tripler was seeking significant change and redesign of its organizational structure and processes, rather than merely gradual improvement, the principles of business process engineering were used in *Planning* an approach for improvement.

The investigator collected correspondence sent to and from members of the BPR-PAT, as well as the minutes of all meetings held by the BPR-PAT. Team members were tasked to identify and report to the team what functions and processes were performed in their respective areas, what information the CG routinely requested from them, what data/reports their areas regularly produced, and what information their areas should or could provide to assist the organization in making sound decisions. The investigator collected this information and organized it into a Microsoft® Excel spreadsheet of sections, functions, reports/data provided routinely, and information requested by the CG. This spreadsheet matrix aided the team in identifying desired processes, external overlaps, and desired outcomes, which were then also included in the spreadsheet. This process assisted the group in establishing parameters for organizing the entities involved to best reflect the desired model, thereby identifying an appropriate realignment of Tripler's organizational structure.

Once the team decided upon a plan for realigning the organizational structure of Tripler's technical support services, team members presented first an in-process review, and finally, a decision brief to the Commanding General. The CG had the authority to accept, reject, or modify any proposal brought forward by the team. This case study

concluded at the decision brief with the CG's decision as to how to realign Tripler's organizational structure based on the team's recommendations. The investigator collected all Microsoft® PowerPoint slides used in the in-process review and in the decision brief.

Validity and Reliability

Three tests relevant to judging the quality of descriptive case studies are construct validity, external validity, and reliability. (Yin, 1994) Validity is the extent to which a study actually measures what one desires to measure. (Cooper & Schindler, 1998) Construct validity involves establishing correct operational measures for the concepts being studied. Construct validity was increased by using multiple sources of evidence and by establishing a chain of evidence during data collection. The multiple sources and chain of evidence for this case study were the electronic correspondence sent between members of the process action team, minutes of the team meetings, direct observation of the team's process, the Microsoft® Excel spreadsheet used by the group, and the Microsoft® PowerPoint slides that were used in the team's decision brief to the CG. In addition, key informants reviewed the case study draft.

External validity establishes the domain to which a study's findings can be generalized. In contrast with statistical generalization, case studies rely on analytical generalization for external validity. Analytical generalization involves attempting to generalize a particular set of results to some broader theory, and relies on replication. In case study research, replications of findings can be established through multiple-case

designs. This is a single case study and as such does not seek external validity or generalizability to other cases of organizational structure realignment. (Yin, 1994)

Reliability contributes to validity and is concerned with the accuracy and precision of a measure. (Cooper & Schindler, 1998) A reliable study is one in which errors and biases are minimized. In terms of a case study, assuring reliability involves documenting and using procedures that would allow another investigator to repeat the *same* case study and arrive at the same findings and conclusions. (Yin, 1994) This case study's investigator can be considered unbiased in that he is not a member of any of the organizational units involved. In addition he will soon leave Tripler AMC and can therefore be considered to not have an interest in any particular outcome of the reengineering process.

Ethical Considerations

All participants of the BPR-PAT team were informed of the investigator's role as an unbiased researcher. This did not, however, preclude the free exchange of ideas or the withholding of pertinent information from the team.

3. THE RESULTS

Between November, 1999 and April, 2000, a Business Process Reengineering Process Action Team at Tripler AMC developed a proposal to realign the medical center's technical support organizational structure to reflect the "best business practice" that they felt would facilitate coordinated care, maximize the use of resources, and integrate information and finance systems. The team presented its proposal in a decision brief to Tripler's Commanding General on April 4, 2000.

In the proposal, the team identified general concepts, organizational cells, processes, and outcome measures that the team members believed would be necessary to achieve "best business practice" (Table iii). The team members grouped these desirable outcomes into four cells: Data Quality Management, Decision Support, Customer Services, and Health Care Utilization (Table iv). They then recommended two options for alignment of these cells within the organization (Figure v) and listed the resourcing requirements for each cell (Table v). The team felt the best placement of the Data Quality Management, Decision Support, and Customer Services cells would be as branches of Tripler's Managed Care Division. According to the proposal, Data Quality Management will be an entirely new section at Tripler, while MCD's Business Case Analysis Branch will transition to Decision Support Branch and TRICARE Operations Branch will become Customer Services Branch. According to the team's recommendations, MCD will be reorganized, reinvigorated, and realigned under the Deputy Commander for Administration (DCA) instead of its current alignment under the Deputy Commander for Clinical Services (DCCS). The team identified missions and functions for each of the four cells (Table vi).

The team could not reach consensus on placement of the fourth cell, Health Care Utilization, and so presented two options (Figure v) for final decision by the commander. The first option was to have Utilization Management (UM) remain in the Clinical Quality Services Branch, Quality Services Division with a number of proposed additional personnel and responsibilities as outlined for the Health Care Utilization cell in Tables iv and v. The second option was to have the business functions of UM move from Clinical Quality Services Branch, Quality Services Division to the newly modified Managed Care Division, while the quality improvement (QI) functions of UM would remain in Clinical Quality Services Branch, Quality Services Division.

Table iii – Desired Outcomes from Brainstorming Session Organized into Cells/Shops, General Concepts, Processes, and Outcome Measures

<u>CELLS/SHOPS</u>	<u>GENERAL CONCEPTS</u>
<ul style="list-style-type: none"> • Cell to support clinical operations • Merge contracting activities • Standardization cell for products • One shop to coordinate filling (business type) needs for providers • Structure/cell to coordinate care to non-DOD beneficiaries (a one-stop shop) with link to DCCS for resolution as needed • Cell for make-buy decisions • Data Quality Manager • Data analysis / data management cell • Sub-teams for DQM • A MINI-PASBA (MEDCOM model) <ul style="list-style-type: none"> • Data quality • Data extraction • Data analysis • Data management • Data feedback 	<ul style="list-style-type: none"> • One-stop shopping • Avoid duplication • Define communication channels • Matrix of process ownership • Decisions made at clinical level • Data feedback to providers • Data feedback • Timeliness of data analysis & timely feedback to providers • Timeliness of referrals & the feedback to the referring provider • Streamlined processes (administrative & clinical) • Ownership of systems • Virtual office (better linkage) for DQM • Defined periodic metric reporting • Good customer service
<u>PROCESSES</u>	<u>OUTCOME MEASURES</u>
<ul style="list-style-type: none"> • Method to determine if services are appropriate • Marketing/Education to staff/providers & beneficiaries (TRICARE) • Assistance to PCM in managing patient population • MC provide data/policy information to clinical operations • Joint development of benchmarks (MC & providers) • Fill void of expertise / Provide tools to department health care administrators • Data feedback to providers • Data feedback • Disease management • Case management • Decision support • Defined periodic metric reporting • Program analysis evaluation 	<ul style="list-style-type: none"> • Increased provider productivity • Increased customer satisfaction • Increased financial status • Increased quality of care • Increased visibility & desirability of Tripler AMC • Readiness / GME • MC contract (DHCPP) monitoring & compliance

Table iv – Four Major Groupings of Cells / Processes

1. Data Quality Management <ul style="list-style-type: none"> a) Data extraction b) Data quality analysis c) Data management d) Medical statistics reporting e) POC lists for DQM sub-teams f) Feedback 	2. Health Care Utilization <ul style="list-style-type: none"> a) Link to DCCS and DCA b) Disease management c) Utilization management d) Case management e) VA Health Care Finder (from CSD) f) Authorized referrals g) Pacific Island Program Administrative Clerk (from PAD)
3. Decision Support Center <ul style="list-style-type: none"> a) Make-buy analysis b) Workload analysis c) Product standardization (Logistics Enterprise Savings Program) d) Business case analysis e) DHCPP f) Resource sharing program g) Coordination of contract actions h) MEDCASE / CEEP review for clinical interoperability and standardization i) Provide routine outpatient/ referral data to CSD j) Monthly patient access/ referral reports to CG k) Analysis of these reports and fixes (as needed) l) Feedback 	4. Marketing / Education / Customer Service <ul style="list-style-type: none"> a) Provider / staff / beneficiaries education b) Provider directory c) Marketing: <ul style="list-style-type: none"> • Third party collection program • Clinics • TRICARE d) Link to Public Affairs Office e) Patient / Members Services <ul style="list-style-type: none"> • Health Benefit Advisors • Enrollment • Eligibility for Care: <ul style="list-style-type: none"> Non-DoD Beneficiaries Silver Program VA Beneficiaries Pacific Island Program GME Patients

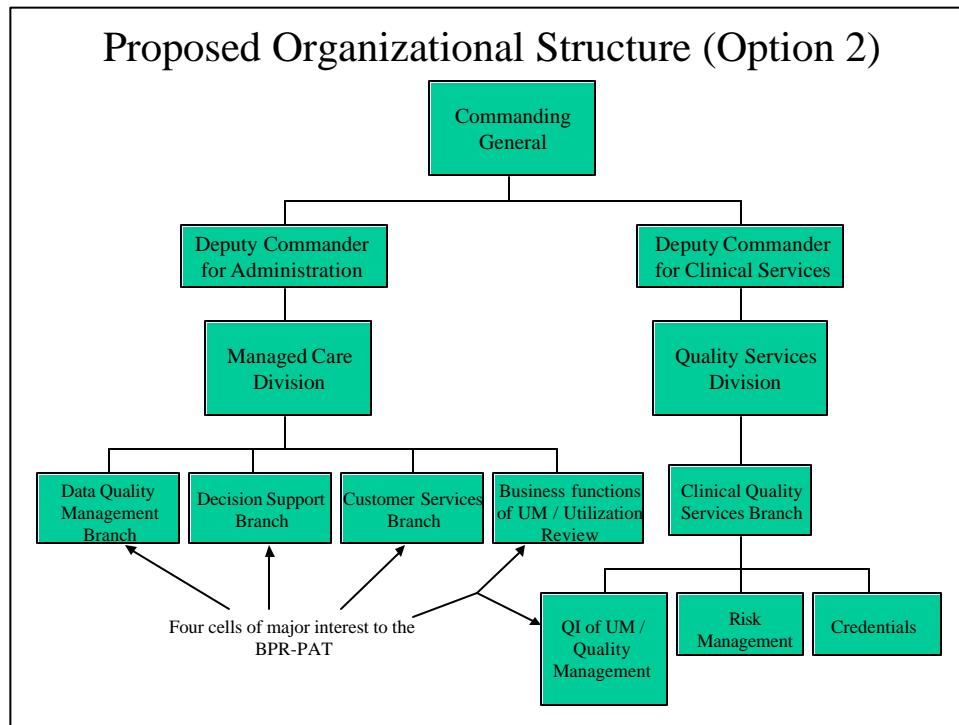
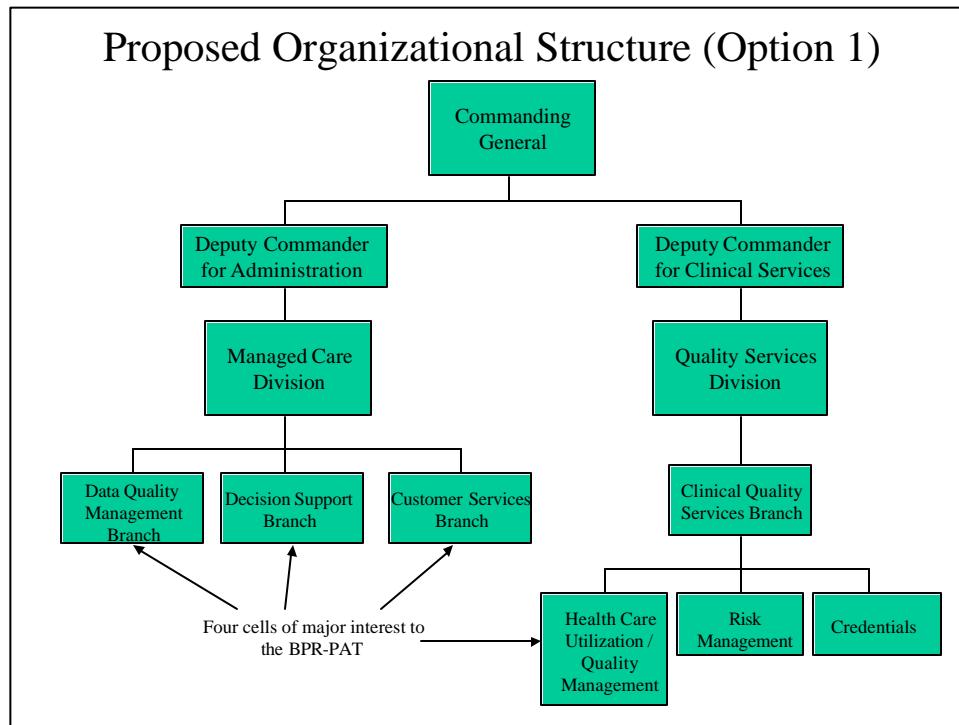
Figure v –Proposed Organizational Structure with Two Options for UM

Table v – Proposed Realignments and Resourcing Requirements

<i>Functions transferring to new cells/branches:</i>	From Current Location	To Cell / Branch
Pacific Island Admin Assistant	PAD	Health Care Utilization
VA Health Care Finder	CSD	Health Care Utilization
Programming (to remain an IMD asset)	IMD	Data Quality Management
Standardization / Enterprise Savings	LOG	Decision Support
<i>Resource Requirements / Staffing:</i>		
<i>Data Quality Management</i>		
One FTE*: Data Quality Manager (Branch Chief)		
One FTE: Programmer (GS; IMD-owned / MCD-directed)		
One FTE*: Data Extraction Technician		
Three FTE total / Total new recruit actions = + two FTE		
<i>Decision Support</i>		
One FTE: Healthcare Administrator (Medical Services Corps, 70A series, Branch Chief)		
One FTE*: Nurse Methods Analyst, Logistics Enterprise Savings Program (LESP) (military to civilian conversion from Logistics Division)		
One FTE: Administrative Assistant		
One FTE*: Management Assistant, LESP, (military to civilian conversion from Logistics Division)		
Two FTE: Management Analysts		
One FTE: Health Systems Specialist		
Seven FTE total / *Total new recruit actions = + two FTE		
<i>Health Care Utilization</i>		
One FTE: Nurse Methods Analyst (Branch Chief)		
One FTE: VA Health Care Finder (transfer from CSD)		
One FTE: Pacific Island Program Administrative Assistant (transfer from PAD)		
Two FTE: Utilization Management (two FTE from QSD dedicated to business-linked UM functions)		
Five FTE total / No new recruit actions		
<i>Customer Services</i>		
One FTE: Healthcare Administrator (Medical Service Corps, 70A series, Branch Chief)		
Two FTE: Contract Representatives (currently Health Benefits Advisors)		
Two FTE: Office Automation Clerks		
Four FTE: Managed Care Program Clerks		
Nine FTE total / No new recruit actions		

Table vi – Missions and Functions of Data Quality Management, Decision Support, Customer Services, Health Care Utilization Cells

Cell	Mission	Functions
Data Quality Management (DQM)	Deliver quality data to support decisions relating to access, quality, and cost of health care provided to our beneficiaries by ensuring accuracy, completeness, validity, and timeliness of data.	<ul style="list-style-type: none"> • Data extraction, quality analysis, & management • Coordinate DQM sub-teams (i.e. link to MEPRS Branch in RMD and to Med Stats in PAD) • Feedback <p>Products:</p> <ul style="list-style-type: none"> • Meaningful metrics • Coordination of data quality improvement activities • Regular feedback on data quality to those responsible for data generation / data collection
Decision Support	Evaluate and recommend courses of action that support best business practices and ensure access to quality, cost effective healthcare.	<ul style="list-style-type: none"> • Make-buy analysis • Business case analysis • Workload analysis • Product standardization / enterprise savings • DHCP Program • Resource sharing program • MEDCASE/CEEP reviews • Provide routine outpatient referrals to CSD • Provide monthly patient access/referral data to CG
Customer Services	Assess customer needs, provide advice and assistance regarding benefits and enrollment, and provide beneficiary and staff education in conjunction with marketing.	<ul style="list-style-type: none"> • Provider / staff / beneficiary education • Provider directory • Internal education: TPCP, TRICARE, VA, etc. • Link to Public Affairs Office (PAO) • MCD transitions to strategic marketing • PAO markets special target populations • Patient / member services • Health Benefits Advisors • Eligibility for care (non-DoD beneficiaries, Silver Care, Supplemental Care, Pacific Island Program, etc.)

Table vi (continued) – Missions and Functions of Data Quality Management, Decision Support, Customer Services, and Health Care Utilization Cells

Cell	Mission	Functions
Health Care Utilization (HCU)	Provide systematic evaluation of the clinical necessity, appropriateness, <i>quality</i> *, and efficient use of health care services, procedures, and facilities.	<ul style="list-style-type: none"> • Utilization management • Disease management • Case management • VA Health Care Finder (from CSD) • Pacific Island Program Administrative Clerk (from PAD) • Authorized referrals • Link to both DCCS and DCA

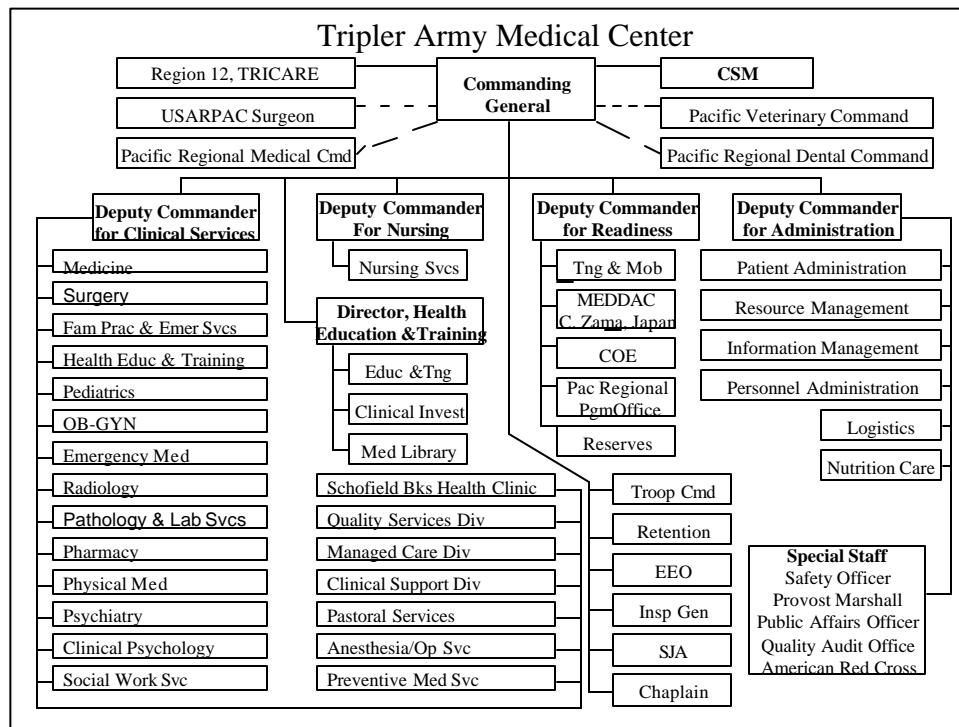
*The word “quality” remains in the mission statement with Health Care Utilization being a part of the Quality Services Division. If HCU were to move to MCD, the team discussed that the word “quality” might no longer be appropriate in this mission statement.

4. DISCUSSION

Initial Focus of the BPR-PAT

The Business Process Reengineering Process Action Team (BPR-PAT) began meeting weekly on November 23, 1999. The initial focus of the BPR-PAT was a review of team members' respective areas of hospital business management (coordinated care, information systems, finance, billing, and data integration). Among the team's objectives in doing this review were to define the functions encompassed by each area, their composition, attendant operations, tools and resources used to complete those functions, any additional resources that would enable the areas to do those functions better (or to accomplish functions set aside), and any functions no longer deemed necessary. At three initial weekly meetings, team members presented their respective departmental overviews to the team. Specific functions of the branches of each division are listed in the spreadsheets in Appendices A and B. Figure vi presents a diagrammatic overview of Tripler AMC's organizational alignment at the time of formation of the Business Process Reengineering Process Action Team. This organizational chart is more detailed than that depicted in Figure ii in the introduction.

Figure vi – Tripler's Organizational Alignment Prior to Reengineering



Departmental Overviews

Clinical Support Division

Clinical Support Division is responsible for planning, conducting, and coordinating centralized administrative healthcare management actions and support to all medical center clinical elements. The Chief, CSD provides daily administrative support to the DCCS and supervises five healthcare administrators within the various clinics. CSD serves as the primary action office to the DCCS for healthcare management issues and for the implementation and execution of TRICARE Prime Managed Care Programs. This Tripler division operates the Central Appointments, Hospital Information Desk and the Patient Representative Office. CSD monitors clinical services provided and access to care through the appointment system. CSD currently does front-line training, referral

monitoring, consult tracking, and end-of-day Patient Appointment System reporting. CSD also manages the Physician Board Exams and Mission TDY (Temporary Duty) Budgets. Reporting to the Central Appointments supervisor is the VA Healthcare Finder, who facilitates the appointment process for VA beneficiaries being referred to Tripler AMC. She verifies VA beneficiary registration and authorization from the VA for care at Tripler. Discussion ensued concerning possible realignment of the VA Healthcare Finder position under PAD, where there might be greater integration of the authorization process with the billing process.

Resource Management Division

The Resource Management Division (RMD) is situated under the Deputy Commander for Administration. RMD's primary mission is help the organization to obtain and properly distribute resources (people, supplies, and equipment). Other RMD functions include publishing reports to inform the Commander how well the organization is performing in relation to workload produced, efficiencies, and other performance indicators. RMD functions include budgeting & execution, civilian personnel liaison, manpower documentation, management analysis, agreement management, workload reporting, and personnel utilization reporting. The RMD chief is also the medical center's comptroller. RMD at TAMC is organized into three branches: Management Analysis, Program & Budget, and Manpower Documentation Branches. Most Army Medical Center RMDs have a Nurse Methods Analyst, however TAMC's has moved through several departments and now is located in the Managed Care Division as the Chief, MCD.

Also located in RMD is the VA Joint Venture Program Coordinator's Office. This office coordinates and manages Tripler AMC's VA/DOD resource sharing agreements and provides administrative and clerical support to ensure success of the Joint Venture. The office was originally managed out of RMD's Management Analysis Branch, but was moved out of the branch so that the program coordinator could report directly to the Chief, RMD. In actual practice the program coordinator currently reports directly to the DCA due to the Joint Venture's high command interest.

The issue was raised concerning duplication of efforts regarding data quality and trend analysis which are being performed not only by RMD, but also by CSD, MCD, PAD, and UM. The BPR-PAT discussed centralization but during the overview decided that centralization was not necessary. The team felt that all areas performing data quality and trend analysis should have the same focus and priorities with collaborative support of customers.

Utilization Management, Quality Services Division

Utilization Management is currently within the Clinical Quality Services Branch of Quality Services Division (QSD). The mission of the Clinical Quality Services Branch includes quality/utilization management, risk management, WestPac case management, and credentials. Case management other than WestPac (patients referred to Tripler from outlying areas of the western Pacific rim) has moved to Department of Nursing and the "product lines," though it maintains close interaction with UM. UM attempts to ensure maximization of potential third party reimbursement. UM reported many interactions with other departments. UM interacts with PAD on issues concerning admissions and

dispositions, billing, medical records review, statistics, and air evacuation case management. UM interacts with MCD concerning capacity issues and supplemental care. UM interacts with the product lines in the areas of case management, social work issues, blood/ancillary usage, cost containment training to providers, and ORYX data. UM interacts with RMD for workload data, cost data, and the VA Joint Venture Program. UM interacts with IMD concerning data quality and automated clinical forms. And UM interacts with PAD due to concurrent coding of records. The Chief, Clinical Quality Services Branch (UM) noted that UM is lacking in the areas of automated data collection (although it was felt that this would improve with the availability of better technology for bedside usage), statistical analysis support, and abilities in usage of some of the clinical information systems.

QSD's other branch is a Quality Consulting Branch. QSD is quite proud of Tripler's perfect score of 100 on the recent JCAHO survey. The mission of the Quality Consulting Branch is "to support Tripler's evolution as a learning organization and to improve outcomes by educating and training staff in quality techniques, by consulting and facilitating, and by maximizing the strategic planning and accreditation process." The accomplishments of this branch include quality improvement/customer-focused programs, customized consulting and facilitation services, a "Superheroes" program, and the Quality Journal Club.

Information Management Division

Information Management Division (IMD) reports to the Deputy Commander for Administration. IMD provides integrated IM services and support to Tripler AMC and

its auxiliary organizations. These services encompass the disciplines of telecommunications, automation, visual information, records management, and printing and publications. IMD has many of the functions that formerly were the realm of the hospital adjutant, ever since 1984 when the Automation Management Officer and Adjutant were merged to create one Information Management Officer (IMO). The chief of IMD serves as the organization's IMO.

The BPR-PAT discussed the need for greater IM support on the departmental level and the lack of systemic informatics organizational support, which is not currently a funded function of IMD. This has resulted in departments seeking to hire employees within each discrete area to provide this support. The general consensus of the team was the need to be more efficient and effective on an organization-wide basis.

Managed Care Division

Currently, Tripler's Managed Care Division (MCD) is situated under the Deputy Commander for Clinical Services (DCCS) along with the Clinical Support Division (CSD), Quality Services Division (QSD), and the various clinical departments. MCD consists of a Business Case Analysis (BCA) Branch and a TRICARE Operations Branch. The BCA Branch handles the Direct Health Care Provider Program (DHCPP), Resource Sharing Program, Contract Analysis, Contract Compliance, Make/Buy Analysis, and miscellaneous studies. TRICARE Operations Branch manages the Managed Care Program (MCP), Health Benefits Advisors (HBA), Internal/External Liaison, the Supplemental Care and Tripler Silver Programs, and Demand Management. HBA was managed through CSD until the BCA Branch was established in July 1998. HBA is a

well-established function at Tripler that cross-functions with the managed care contractor, Queen's Health Care Plan (QHCP) and with the TRICARE Pacific Lead Agency.

Among the functions of MCD are ensuring that QHCP is notified of conditions which might result in increased referrals to the civilian TRICARE network, and facilitating actions to eliminate the need to refer care to the network because of the resulting cost to Tripler through bid price adjustment. This involves proposing, analyzing, and implementing Resource Sharing Agreements that will improve access to medical treatment facility (MTF), reduce beneficiary and government cost, optimize MTF resources and integrate health care delivery. Resource Sharing (RS) offers Tripler AMC the opportunity to maintain direct care of its patient population as opposed to referring them to network providers. MCD ensures that the RS Proposal is a cost-effective alternative to referral to network providers.

An alternative option to RS is the Direct Health Care Provider Program (DHCPP). Whereas the contractor purchases resources under RS, Tripler purchases the resources under the DHCPP. For both programs, MCD BCA Branch must demonstrate cost savings over Tripler providing the care on its own. A caveat is that RS cannot support GME, only workload; Direct Health Care can support GME and also short-term hires. Historically, Direct Health Care contracts were managed by Resource Management Division, but were not being studied for validity. MCD now validates that the workload need justifies the cost of hiring.

MCD's concerns included the need for more analysts, for improved management of the DHCPP, for specialty care business case analysis, for data quality management, and for greater utilization management visibility.

Patient Administration Division

Patient Administration Division (PAD) has three branches, Patient Affairs, Patient Business Services, and Medical Records. The Patient Affairs branch handles line of duty reports, death reports/certificates, birth certificates, and Medical Evaluation Board (MEB) processing and procedures to include the Physical Evaluation Board Liaison Office. The Patient Business Services branch handles third party collections, VA collections, the Pacific Island Health Program collections, medical services accounts, admissions and dispositions, and patient movement. The Medical Records branch manages record quality assurance, transcription, analysis/review, correspondence, the doctors' chart room, and outpatient records.

The Chief, PAD indicated that PAD is lacking in the area of data quality (specifically Ambulatory Data System (ADS) documentation versus record documentation). He also noted an ability to maintain an adequate number of quality coders apparently due to grade limitations at Tripler which result in significantly higher paid positions elsewhere in town.

Logistics Enterprise Savings Program

This program works out of the Logistics Division, which reports to the Deputy Commander for Administration. The Logistics Enterprise Savings Program (LESP)

supports the Army Surgeon General's objective of a minimum of \$1 million per fiscal year in cost savings per Army Medical Center / Medical Activity worldwide. This is accomplished through such activities as product standardization, bulk purchase, purchase of quality products at the lowest cost, decreasing waste of products, management of recycling, reprocessing, refurbishing, and remanufacturing, fraud detection overwatch, and liaison with other hospitals in the community for standardization.

BPR-PAT Refocuses on the Task

In mid-January, Tripler's commander clarified her expectations for the team. She set the timeline for the team to provide her with either an in-process review or a final decision brief by the end of March, and she approved the team's request to work off-site for two days to focus on the task. The team leader, Tripler's Chief of Staff and Deputy Commander for Administration (DCA), recommended that this case study's investigator facilitate the off-site planning session due to the investigator's unbiased interest in the team's final recommendations and outcomes.

In four subsequent meetings leading up to the off-site planning session, the team recommended additional staff (in addition to those listed previously in Table ii, Methods section) for attendance at the off-site session (Table vii), off-site session rules of engagement (Table viii), and the mission and goals for the session (Table ix). The team recommended the inclusion of the Chief, Nursing Support Service, who had recently been identified as incoming Chief, MCD, since she would soon become responsible for implementing any proposed changes in MCD. The team also recommended the inclusion of three branch chiefs (Operations Branch, MCD; Management Analysis Branch, RMD;

and Patient Business Services Branch, PAD) because of their operational level insight, and the Chief, Logistics Enterprise Savings Program, Logistics Division, because of this value analysis program's importance to Tripler's efforts to maximize the use of resources.

Also prior to the off-site session, team members submitted to the facilitator information regarding their respective sections, functions, reports/data provided routinely, information requested by the CG, and what information they felt their areas should or could be providing to facilitate the making of sound decisions. The investigator organized the information gathered into a Microsoft® Excel spreadsheet found in Appendix A of this report. The team decided that the O-M-R (Outcomes-Methods-Resources) Model for leadership strategy would be an effective way to conduct the process at the off-site session. (Center for Army Leadership, 1997)

Table vii – List of Additional Team Members for the Off-Site Planning Conference

- | |
|---|
| <ul style="list-style-type: none">• Chief, Nursing Support Service and selected incoming Chief, MCD• Chief, Operations Branch, MCD• Chief, Management Analysis Branch, RMD• Chief, Logistics Enterprise Savings Program, Logistics Division• Chief, Patient Business Services Branch, PAD• Visiting Administrative Resident—Co-facilitator |
|---|

Table viii – Rules of Engagement for the BPR Off-Site Planning Conference

• Be recognized by the facilitator prior to speaking.
• Don't interrupt others.
• Be brief, concise and calm.
• Listen without bias and with an open mind.
• Avoid personal agendas; be organizationally focused.
• Recommendations will be made by group consensus.
• Use active listening and provide constructive feedback.
• Assign a leader and a recorder for each group (if necessary).
• Facilitator will close the first day's meeting with an evaluation of the progress and a list of action items for the next day.
• Wear aloha attire.
• Have fun!

Table ix – Mission and Goals for the BPR Off-Site Planning Conference

<i>Mission</i>	To realign the organization structure to reflect the “best business practice” that will facilitate coordination of care and maximize the use of resources.
<i>Goals</i>	
1	Identify duplication of efforts across the organization.
2	Identify assets and the level of expertise of the current staff.
3	Identify what we are doing well. What metrics do we use to measure this outcome?
4	Identify what we are not doing well.
5	Identify what we are not doing that we would like to do.
6	Identify what we are doing that we should not be doing.
7	Identify where we could utilize the skills of a data quality manager and support structure for that function.
8	Identify the “ideal” organization, one that is most business oriented and most efficient in lieu of evaluating what we currently have/require.
9	Designate “ownership” of the processes.
10	Identify the resource constraints associated with the recommended options.
11	List functions within areas that may be impacted by potential changes.
12	Consider the customer focus.

BPR Off-Site Planning Conference

Following an agenda (Table x) proposed by the facilitator and based on the team's mission and goals, the team utilized the O-M-R Model strategy at the BPR Off-Site Planning Conference in late February. Led by the facilitator, they brainstormed desired

outcomes of the “ideal” organization. The facilitator organized the resulting list into key organizational cells/shops, general concepts, processes, and outcome measures (Table iii). The team included in the list cells, concepts, processes, and measures that already exist at Tripler in some form, as well as others that the team felt it would like to see at the medical center.

Table x – Agenda for the BPR Off-Site Planning Conference

Day One – 24 Feb	
0745-0800	Arrival / Continental Breakfast
0800-0815	Admin Announcements / Review Off-Site “Rules of Engagement” / Review Tripler AMC Mission & Vision
0815-0830	BPR PAT Goal / “Hallmarks of Reengineering”
0830-0845	Review the FOCUS-PDCA Model / Introduce the O-M-R Model
0845-1000	Brainstorm Outcomes Desired – The “Ideal” Organization
1000-1015	Break
1015-1200	Identify Duplication of Efforts & Unnecessary Efforts
1200-1300	Lunch
1300-1430	Identification of Processes to be Reengineered
1430-1500	Prioritization of Processes to be Reengineered
1500-	Break
Day Two – 25 Feb	
0745-0800	Arrival / Continental Breakfast
0800-0900	Brainstorm How to Reengineer Processes Selected
0900-1015	Identification of Areas Recommended for Restructuring
1015-1030	Break
1030-1200	Details and Prioritization of Restructuring
1200-1300	Lunch
1300-1400	Identification of Resources Required / Constraints
1400-Completion	Put Together Final Product

The team came to a consensus that the listed cells, concepts, and processes fell into four major groupings or cells that the team eventually labeled Data Quality Management, Decision Support, Health Care Utilization, and Customer Services (Table iv). The team agreed that three of these cell groupings (Data Quality Management, Decision Support, and Customer Services) would best fall under a reorganized and

reinvigorated Managed Care Division (MCD) to be realigned under the Deputy Commander for Administration (DCA) instead of MCD's current alignment under Tripler's medical director, the Deputy Commander for Clinical Services (DCCS). The team identified missions and functions for each of these three groupings (Table vi).

The rationale for realigning MCD under the chief administrator rather than under the medical director was to place more emphasis on the business aspects of the work done in Managed Care. The team also discussed how the business of MCD deals more with strategic and policy issues as opposed to the operational issues dealt with on the clinical side of the house. Aligning MCD under the DCA also made sense given MCD's many interactions with the Resource Management and Patient Administration Divisions, and its involvement in business processes that are closely interrelated to business processes occurring in those divisions, which are also aligned under the DCA.

The team noted that no centralized data quality management function currently exists at Tripler. A centralized data quality management cell was deemed highly desirable by the team. By collocating data extraction, data quality, data analysis, data management, and data feedback functions in a Data Quality Management branch working side-by-side with its major customers in a Decision Support Center, the team believed that significant organizational benefits could be realized through process efficiencies and unity of purpose. The team discussed the notion of placing DQM in IMD, but decided that at this early stage DQM needed more of a managed care focus and major benefits could be realized alongside Decision Support. The team conceded that over time growth of the DQM function might warrant consideration of alignment within IMD.

Additionally the team had identified several cells/processes that currently reside in

departments other than the where the bulk of the cells/processes in the respective groups reside. These included the VA Health Care Finder currently in CSD and the Pacific Island Program Administrative Clerk currently in PAD as opposed to being collocated or at least closely integrated with the other cells/processes listed with Health Care Utilization. The VA Health Care Finder and the Pacific Island Program Administrative Clerk are involved in referral authorizations for VA beneficiaries and Pacific Island Nation beneficiaries respectively, while other referral authorizations are handled in UM. The team decided that significant efficiencies could be realized by collocating these two cells/processes with the UM function. Also of note in the Health Care Utilization grouping was a desire by the team to see a strong link to both the DCCS and the DCA.

Another program identified as outlying was the Logistics Enterprise Savings Program, a value analysis program currently situated in the Logistics Division. Although the LESP is product oriented and has logistical foundations, it is led by a clinician (nurse methods analyst) and must have the buy-in of the organization's health care providers in order to be effective. The team concluded that this cell would best be collocated with the other listed managed care decision support cells/processes.

The team also identified the need to link marketing and education to the Public Affairs Office (PAO), which is on the CG's special staff. This is due to the CG's interest in having the PAO market to our single service members, who are not marketed by the TRICARE contractor. This particular group has unfortunately not had the impact of marketing and education that service members with dependent family members have had because of the terms of the TRICARE contract. A strong link between the Marketing / Education / Customer Services cell and the PAO should facilitate efforts to reach all of

Tripler's beneficiaries.

The team could not reach consensus regarding placement of the fourth cell grouping, Health Care Utilization, and so did not at first entertain a mission for this cell. Some members of the team felt strongly that the Health Care Utilization cell belonged in Managed Care closely aligned with the other three cells, reflecting more of a business orientation. Other team members, with more of a quality orientation, were very insistent that the processes represented by this cell should remain in the Clinical Quality Services Branch of the Quality Services Division, where they were integrated with the quality management and risk management functions of the organization. The overall mission of the Managed Care Division (MCD) is "to maintain a balance between quality, cost, and access by acting as the central agency within TAMC with responsibility for the oversight, development, coordination, policy implementation, business case analysis, marketing, and education of managed care."

The disagreement over the Healthcare Utilization grouping centered around whether this particular grouping, largely consisting of Tripler's existing Utilization Management (UM) team, should remain in the Quality Services Division (QSD), should move to the Managed Care Division (MCD), or should exist as some compromise of these two options. Some team members felt strongly that at least the UM portion of the Healthcare Utilization cell should remain in the Quality Services Division where the UM process is heavily integrated with Risk Management and Quality Management. Others felt strongly that the UM process ought to be more closely aligned with the business side of managed care in the MCD to allow for more emphasis on cost reduction.

Actual placement of UM functions in MCD would purportedly allow for oversight and awareness by MCD of the many business decisions that are made by the UM nurses. It would also afford UM personnel access to MCD staff for visibility on data quality and business decision issues facing the organization. Team members in favor of this business model pointed out that the model works well in other military medical centers, such as Madigan Army Medical Center and Balboa Naval Regional Medical Center. They would continue all current UM functions, but in addition provide front-end visibility and tracking of the VA outpatient authorization process, re-establish a link with the Pacific Island Nation Program, and integrate UM data in make-buy, business case, and workload analyses.

Those on the quality side pointed out that the business model is losing acceptance in the US. They suggested that actual oversight was not necessary for MCD to be made aware of and to be more involved in these business decisions. Instead, they felt that improved communications with transfer of requested data and information would suffice. In addition to either keeping UM in QSD or moving it to MCD, the team entertained intermediate compromises. One involved a splitting of UM into business functions in MCD and quality improvement (QI) functions in QSD. Other compromises involved a new rating chain, or reporting relationship, for the chief of the UM/ Health Care Utilization cell that would include both the chief of QSD and the chief of MCD, in order to formalize responsibilities, reporting relationships, and lines of communication.

BPR-PAT In-Process Review

Based on the four groupings identified, the team initially developed a proposed organizational structure (Figure vii) leaving the UM/ Health Care Utilization cell as an as yet unresolved issue, and identified realignments and resource requirements (Table xi). The team presented its recommendations to the CG as an In Process Review (IPR) on March 20. They recommended that a small UM ad hoc group continue to work the UM issue over the next few weeks before a final decision brief. They recommended reorganization of the MCD including identification of additional full-time equivalents (FTE) listed in Table xi. According to the proposal there would be realignment of the Pacific Island Program Administrative Assistant (from PAD) and the VA Health Care Finder (from CSD) to Health Care Utilization, a programmer from IMD to Data Quality Management (IMD-owned, MCD-directed), and the Logistics Enterprise Savings Program (from Logistics Division) to Decision Support.

Figure vii –Proposed Organizational Structure at the In Process Review (IPR)

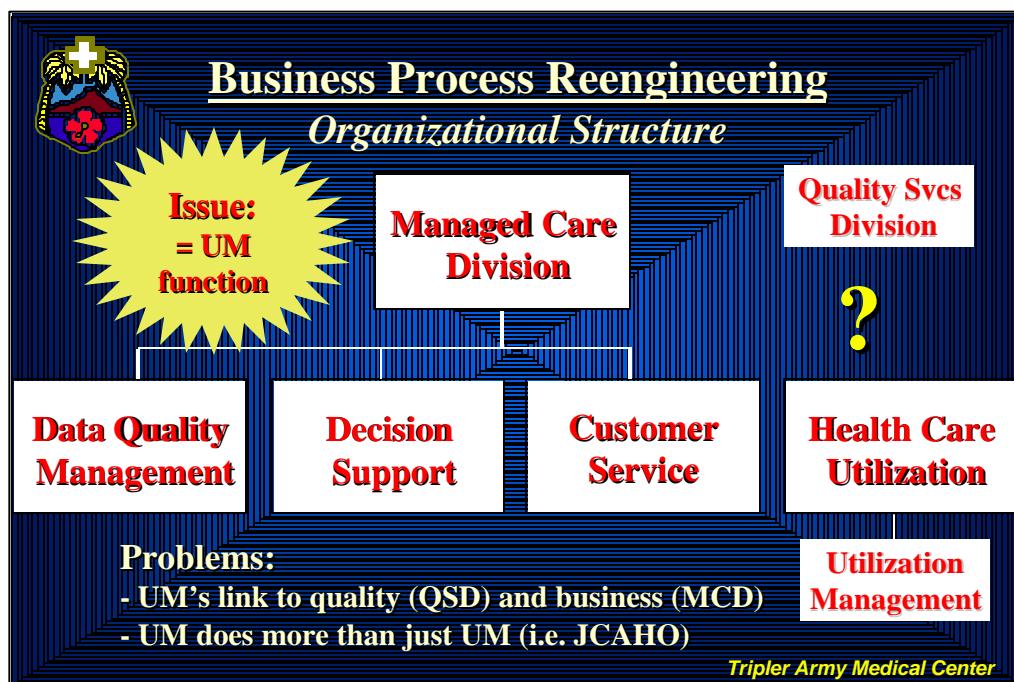


Table xi – Proposed Realignments and Resourcing Requirements

Functions Transferring to MCD:	From Current Location	To Cell / Branch
Pacific Island Admin Assistant	PAD	Health Care Utilization
VA Health Care Finder	CSD	Health Care Utilization
Programming (to remain an IMD asset)	IMD	Data Quality Management
Standardization / Enterprise Savings	LOG	Decision Support
Resource Requirements / Staffing:		
<i>Data Quality Management</i>		
One FTE*: Data Quality Manager (Branch Chief)		
One FTE: Programmer (GS; IMD-owned / MCD-directed)		
One FTE*: Data Extraction Technician		
Three FTE total / Total new recruit actions = + two FTE		
<i>Decision Support</i>		
One FTE: Healthcare Administrator (Medical Services Corps, 70A series, Branch Chief)		
One FTE*: Nurse Methods Analyst, Logistics Enterprise Savings Program (LESP) (military to civilian conversion from Logistics Division)		
One FTE: Administrative Assistant		
One FTE*: Management Assistant, LESP, (military to civilian conversion from Logistics Division)		
Two FTE: Management Analysts		
One FTE: Health Systems Specialist		
Seven FTE total / *Total new recruit actions = + two FTE		
<i>Health Care Utilization</i>		
One FTE: Nurse Methods Analyst (Branch Chief)		
One FTE: VA Health Care Finder (transfer from CSD)		
One FTE: Pacific Island Program Administrative Assistant (transfer from PAD)		
Two FTE: Utilization Management (two FTE from QSD dedicated to business-linked UM functions)		
Five FTE total / No new recruit actions		
<i>Customer Services</i>		
One FTE: Healthcare Administrator (Medical Service Corps, 70A series, Branch Chief)		
Two FTE: Contact Representatives (currently Health Benefits Advisors)		
Two FTE: Office Automation Clerks		
Four FTE: Managed Care Program Clerks		
Nine FTE total / No new recruit actions		

At the IPR, the CG noted that Tripler's UM section has new routines that need to be institutionalized rather than being done in an ad hoc fashion. She stated that every patient entering the facility should be evaluated to see if case management is needed and that she believes that case management as a clinical entity does not belong in MCD, but yet is connected to UM. The CG clearly disliked working around the UM issue by creating a nontraditional rating or reporting scheme for the UM/ Health Care Utilization branch chief.

According to Rosenstein and Propotnik (1997), not only do utilization review, utilization management, and case management roles and responsibilities tend to overlap, but there is no universally accepted definition that clearly distinguishes these categories from each other. They recommend that the organization first set its priorities, then identify goals and objectives for the case management process, and integrate case management into the entire spectrum of organization-wide performance improvement activities. The objectives of the case management process depend upon whether the organization wishes to focus on costs and financial risk, on quality, or on some other important aspect of care such as discharge planning, rehabilitation, home health, or patient satisfaction. Functions that might be considered integral to the case management process are: (1) Utilization Review (severity of illness/ intensity of service criteria, hospital admission, length of stay, discharge planning, hospital readmissions, retrospective case review), (2) Resource Management (ancillary resource utilization), (3) Care Management (critical pathways/ care trails, guidelines/ protocols/ policies &

procedures), (4) Outcome Management (costs, quality, patient satisfaction), and (5) Case Management (continuum of care, disease management). (Rosenstein & Propotnik, 1997)

Preparation for the Final Decision Brief

Over several weeks following the IPR, the UM ad hoc group met a number of times in an attempt to resolve the UM issue. They explored the pros and cons of leaving UM in QSD versus moving UM to MCD. This UM ad hoc group was comprised of four Army Nurse Corps officers (the MCD chief, the incoming MCD chief and current Chief, Nursing Support Service, the Clinical Quality Services Branch (UM) chief, and a Nurse Case Manager. In addition to maintaining UM intact, the group explored the possibility of splitting UM into business and QI functions, in which the business functions would move to MC while the QI functions would remain in QSD. They examined all functions currently being done by UM and divided them into two groups (Table xii) —those that primarily supported quality improvement efforts (and perhaps should remain in QSD) and those that were in support of the clinical business functions (and which, therefore, could potentially move to MCD).

Table xii – UM Business and UM Quality Improvement Products Identified

UM Business Products	UM Quality Improvement Products
<ul style="list-style-type: none"> • Reviews / audits • Monitoring length of stay (LOS) • Authorizations for VA & other third party beneficiaries • Patient transfers (inter-facility) • Bed day variance reporting • Audits of Clinical Practice Guidelines (CPG) implementation (as related to UM) • Discharge planning • Review of inpatient & outpatient “frequent flyers” • Outpatient UM activities 	<ul style="list-style-type: none"> • Disease management • Clinical pathways • Clinical practice guidelines • Readmissions with risk management (RM) implications • Monitoring clinical outcomes of disease management • Incident reporting • Consultant on implementing process improvement initiatives • ORYX / JCAHO preparation / NQMP

The UM ad hoc group also proposed to the BPR-PAT a possible mission statement for the Health Care Utilization cell: “Provide systematic evaluation of the clinical necessity, appropriateness, and efficient use of health care services, procedures, and facilities.” They noted that this mission statement might also include “clinical quality,” if the Health Care Utilization cell were to remain in QSD. Based on their analysis and on the CG’s guidance, the UM ad hoc group agreed that there were only two viable options, but still was not able to reach consensus on an optimal option for UM.

Certain members were adamant that the QI and business functions of UM should not be separated and ought to remain in QSD, where they point to a certain synergy, and economies of scale, among UM, Quality Management, and Risk Management. They also emphasized that utilization management is better accepted by clinicians when it has a quality focus. The quality-focused team members reminded the group, as Brown & Smith (1993) conclude, that although utilization management developed to improve efficiency, their experience has shown that it can also improve quality. They insisted that

all that would be necessary for improvement would be increased communication between UM and MCD. The remainder of the ad hoc group felt that the business functions of UM could be separated from the QI functions and that they would be more effective under MCD. The entire group agreed that moving both the QI and business functions of UM to MCD would adversely affect Quality Management at Tripler, and so would not be a viable option.

The UM ad hoc group also agreed that the VA Healthcare Finder and Pacific Island Administrative clerk should be co-located with the UM function, and that the MCD should be aligned under the DCA. The first viable option identified by the group involved moving the business functions of UM to MCD in a new Health Care Utilization Branch (that is, dividing the UM functions into business products under MCD, and QI products under QSD). The second viable option involved having all UM functions remain in QSD, or the status quo. In preparation for the decision brief, the UM ad hoc group developed a list of pros and cons for each of the two viable options.

Youngberg & Weber (1997) note that the ability to coordinate the flow of data and information is facilitated when reporting relationships allow for Quality Management, Risk Management, and UM to report to the same senior administrator in the organization. This has been the case in Tripler's Quality Services Division for some time now. Although each of these three areas may have a unique purpose, they share a common interest in reviewing data regarding adverse events or other outcomes. Integration of risk, quality, and utilization eliminates the fragmentation of data collection efforts. In fact, Youngberg & Weber (1997) note that integration of UM, Quality

Management, and Risk Management is one possible outcome of reengineering processes in an attempt to minimize duplication of efforts and promote efficiency.

BPR-PAT Decision Brief

The BPR-PAT presented its decision brief to the CG on April 4. The brief included discussion of the placement of the VA Joint Venture Program Coordinator's Office (Table xiii), a comparison of the VA Joint Venture Program Coordinator's functions with the responsibilities of the VA Healthcare Finder (Table xiv), a recapitulation of the key cells identified by the team (Tables vii), their missions and functions (Table viii), and the proposed organizational structure for these cells (Table ix).

Table xiii – Placement of the VA Joint Venture Program Coordinator's Office

Mission	Coordinates / manages Tripler AMC's VA/DoD resource sharing agreements, and provides administrative and clerical support to ensure success of the Joint Venture.
Functions	<ul style="list-style-type: none"> • Develops, maintains & refines agreements • Provides administrative & clerical support • Conducts workload, statistical, rate structure & cost studies • Member of EMT, Ops Council, JVAC, CERP & Engineer committees
FTE	One Management Analyst One Management Assistant
Recommendation	Maintain VA Joint Venture Program Coordinator's Office in RMD (current location)

Table xiv – VA Healthcare Finder Responsibilities

<ul style="list-style-type: none"> • Responds to written and telephonic inquiries concerning VA beneficiary (VAB) care at Tripler • Verifies VAB registration and makes necessary updates • Schedules / reschedules VAB appointments (limited basis) • Notifies clinics of VAB authorization / non-authorization of care • Prepares VAB authorization for follow-up appointments • Ensures VAB appointments in Tripler specialty clinics are made and that VABs are notified • Prepares / submits VAB request for authorization • Verifies that VAB appointments have been kept • Tracks VAB appointments that were booked and not authorized • Prepare End-of-Month Reports
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The decision brief concluded with discussion of the methodology and findings of the UM ad hoc group (Table xv), including the two UM options, their pros and cons (Table xvi), and a request for a decision by the CG.

Table xv – UM Ad Hoc Group Methodology and Findings

UM Ad Hoc Group Members	<ol style="list-style-type: none"> 1. MCD Chief 2. Incoming MCD chief (current Chief, Nursing Support Service) 3. QSD Clinical Quality Services Branch (UM) Chief 4. Nurse Case Manager.
Methodology	<ul style="list-style-type: none"> • UM nurse functions identified, discussed in detail and job descriptions reviewed • Functions categorized as generally business or quality focused • Time allocated to functions identified • Decision matrices designed and possible options discussed
Group Agreement	<ul style="list-style-type: none"> • Two viable options <ul style="list-style-type: none"> Option 1: UM remains in its entirety in QSD Option 2: UM business functions move to MCD, UM quality improvement functions remain in QSD • VA Healthcare Finder & Pacific Island Program Admin clerk should be co-located with UM function • MCD should move under DCA
Group Disagreement	<ul style="list-style-type: none"> • Optimal option • Staffing requirements

Table xvi – Pro and Cons of the Two Options for UM

Pros of UM in QSD (status quo)
<ul style="list-style-type: none"> • Increasing use across country (Henry Ford, Dartmouth, West Paces) • Interqual certification in Utilization Review moving to certification in UM to include quality and clinical functions • Alignment with MEDCOM Quality Management Directorate (with Credentialing, Risk Management, & Quality Management) • Accepted by providers • UM (quality focus) uses education as its basis, so it becomes institutionalized • Current configuration avoids duplication of effort (UM and quality data extracted from charts simultaneously) • Staff cross-trained to meet missions • 24/7 on-call service established (for patients in the network downtown, off-island patients & patient movements) • UM expertise in QSD • Well-established links with PAD <ul style="list-style-type: none"> • Air Evacuation, Third Party Collection Program, Pacific Island Nation Program • VA (link with RMD), Inter-facility transfers (link with MCD) • Medical records review for chart policing to keep on top of JCAHO requirements with on-the-spot corrections (rather than picked up as errors in PAD chart review) • Out-of-region Supplemental Care cases (link with MCD & TRICARE Pacific Lead Agency)
Cons of Utilization Review (business functions of UM) in MCD (under a new Health Care Utilization Branch)
<ul style="list-style-type: none"> • Losing acceptance across country (United Healthcare) • Duplication of effort (charts will be reviewed for business and quality data by different staff) • Splitting out business functions ‘fractures’ effective UM/QI team • May require additional staff (fewer cross-trained staff in QSD, Clinical Practice Guideline implementation) • UR (business focus) uses threat and oversight, forcing to find loopholes • Confusion as to which UM nurse is in which product line • MCD must reestablish/fortify existing links
Pros of Utilization Review (business functions of UM) in MCD (under a new Health Care Utilization Branch)
<ul style="list-style-type: none"> • Model works well in other MTFs (Madigan AMC, Balboa NRMC) • ‘One Stop Shopping’ for business-focused processes • All current UM functions will continue • Services to be added <ul style="list-style-type: none"> • Visibility and tracking of VA outpatient authorization process (front-end) • Re-establish link with Pacific Island Nation Program • Integration of UM data in make-buy, business case and workload analyses • Affording UM personnel access to MCD staff for visibility on data quality issues and business decision issues

- Integration of UM issues in current internal marketing and provider education mission
- UM nurses will be supervised by a clinician with a business focus
- Military RN will pull call duties with back-up within the division
- UM nurses will function within their job descriptions
- Military RN can provide link to military units for WESTPAC function

Cons of UM (in its entirety) in QSD (under Quality Services Branch)

- Key business functions ‘fractured’
- MCD currently does not have visibility on decisions affecting access and costs (possible effects on Bid Price Adjustment)
- Missed opportunities for integration of UM data with make-buy, business case, and workload analyses (currently, UM nurses do not have a business analysis perspective)
- Strategic (business and policy) functions mixed with operational (clinical pathways and CPGs) functions
- Difficult to develop subject matter experts in CPGs with competing business functions
- Mission creep: UM nurses monitoring activities (chart policing) that should be integrated into product line QI programs and reported to the medical records committee (units need to accept responsibility for chart monitoring)

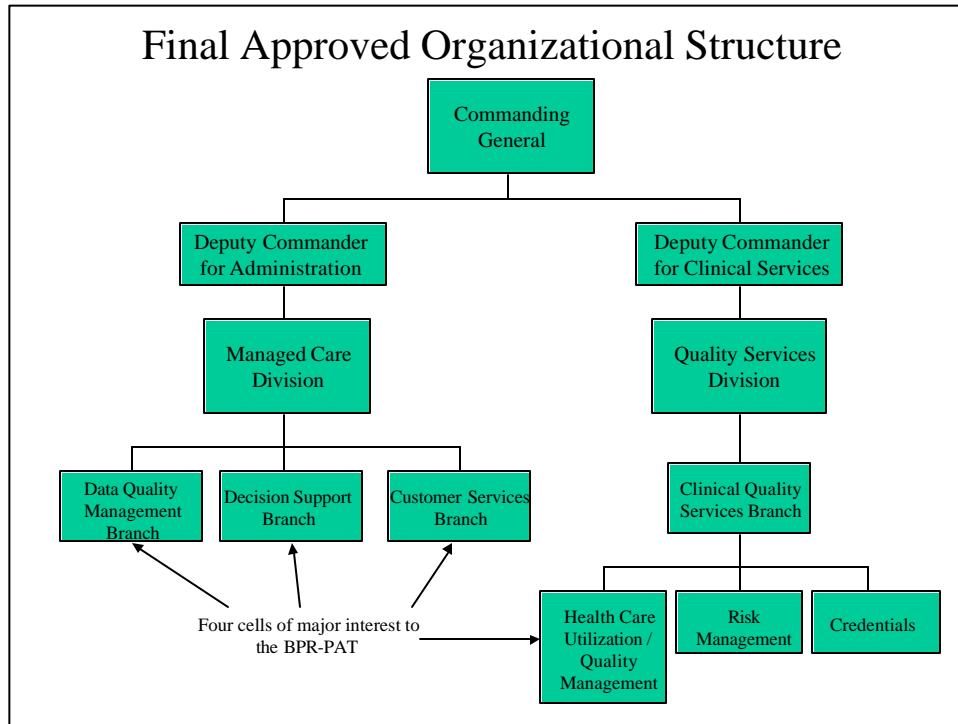
5. CONCLUSION AND RECOMMENDATIONS

A Business Process Reengineering Process Action Team at Tripler Army Medical Center utilized reengineering principles to develop a proposal to realign the medical center's organizational structure. The team proposed an organizational redesign to reflect "best business practice" that will facilitate coordinated care and maximize the use of resources. The proposal directs that Tripler's Managed Care Division be reorganized and reinvigorated into Data Quality Management, Decision Support, and Customer Services Branches, and that the Managed Care Division be realigned to report to the Deputy Commander for Administration (DCA) instead of to the Deputy Commander for Clinical Services (DCCS). The team also presented two options for alignment of a Utilization Management / Health Care Utilization Branch. One option would have Utilization Management remain in the Quality Services Division, while the second option would move the business functions of UM to the newly modified Managed Care Division and leave the quality improvement functions of UM in Quality Services Division.

Tripler's Commanding General approved all of the recommendations made by the team, selecting the first option for the proposed Utilization Management / Health Care Utilization cell (UM functions not to be divided). She directed that the proposed, modified Health Care Utilization cell remain in Clinical Quality Services Branch, Quality Services Division (where the UM function currently resides) until a review in six months. She would like the DCA, the new DCCS, and the new Chief of Managed Care Division (who is soon to arrive with extensive UM experience) to reevaluate the situation in six months. She stated that the status quo has been a problem for two years, is now intolerable, and that the "best business posture will give the best quality care."

The final approved organizational structure realignment resulting from the decision brief is depicted graphically in Figure viii:

Figure viii – Final Approved Organizational Structure



The changes directed by the CG according to the proposal made by the BPR-PAT have begun to be implemented. She directed several of the changes to be implemented with changeover in personnel taking place during the current military Permanent Change of Station (PCS) season. Currently Tripler is seeing a changeover of its DCCS and the chiefs of MCD, RMD, and PAD. Change in an organization is never an easy process. However, in the military system change in personnel is an ongoing process that may actually enhance the acceptability of change in the personnel that remain in place.

Unfortunately, Tripler's BPR-PAT did not have very clearly defined goals. The objective of reflecting "best business practice" is a broad notion. The intent was to facilitate coordinated care, maximize the use of resources, and integrate information and finance systems. The changes made in Tripler's Managed Care Division are headed in this direction, however there is currently no objective method in place to determine success. Among the reported factors for the success of business process reengineering projects is the recommendation to use a structured methodology and to clearly define goals, deliverables, and measurements to determine completion, success, or failure. (Kohn, 1994)

Tripler's leadership should set clear goals and insist on well-defined outcomes in its business process reengineering projects. It would also be advantageous to design and install a rigorous performance measurement and information system to support business process reengineering activities. (Ho, Chan, & Kidwell, 1999) Tripler has extensive information systems in place already. Designing measures to identify the costs, benefits, and improved performance of various business process reengineering initiatives would make the bottom-line of such initiatives more evident.

The outcome and acceptance of reengineering efforts at Tripler would most likely be enhanced through sufficient staff training and skill development in the principles of business process reengineering. Tripler's staff is quite accustomed to the principles and mechanisms of total quality management and continuous quality improvement, and these are indeed a recommended supplement to business process reengineering. (Meisenheimer, 1997, and Ho, Chan, & Kidwell, 1999) However, reengineering is a very different approach that requires embracing the fundamental rethinking of processes and

rapid radical change. The acceptance of such radical change at Tripler might also be enhanced with development of a mechanism to address the social problems that may arise.

Tripler's commander plans to review the outcome of this particular project in six months. It appears from her comments that she may have been hopeful for a more radical proposal, especially as related to utilization management, case management, and quality improvement. The experts are now saying that for many hospitals, the days of quick fixes and easy answers through tradition utilization review are over. (Freedman & Chenoweth, 1999) Hospitals are now seeing a shift in severity of those patients who are hospitalized. There has been such a shift to outpatient care and ambulatory procedures that only the very sick are now hospitalized. Cost containment efforts in acute care must now shift away from simply managing utilization to actually improving the quality of clinical care, to include not only inpatient care but outpatient care as well.

In its vision for the future, Tripler needs to not only look at the overutilization of resources, but at underutilization and misutilization as well. In terms of underutilization, Tripler may be losing money because it is not allocating enough resources in certain areas. This is where disease management will have its place in reducing healthcare costs through improving the health outcomes and quality of life of those with chronic illnesses. The other potential opportunity for cost savings will be in addressing misutilization, or the costs resulting from medical errors and other mistakes. Case managers can be instrumental in reducing such errors. (Freedman & Chenoweth, 1999)

Neuman, Mallach, & Ruetten (1999) offer an integrated approach to managing the data, systems, and processes that Tripler's BPR-PAT found to be quite a challenge in the

reengineering process. In their case study on reengineering outcomes management they discuss a strategy to restructure, redefine, and integrate discharge planning, social services, utilization review, quality management, infection control, and case management into an Outcomes Management division. They also describe development of a plan and process to manage integrated patient and organizational outcome data.

The future “best business practice” that facilitates coordinated care, maximizes the use of resources, and integrates information and financial systems will be a truly innovative and integrated approach. It will prioritize effectively, addressing the greatest cost drivers first. It will involve a true team approach that involves administrators, technical experts, physicians, and other providers. It will depend heavily on the latest and best information technology for data collection, data analysis, and data feedback. It will focus simultaneously on improved integration, operating performance, and customer satisfaction.

Tripler is headed in the right direction with Data Quality Management, Decision Support, and Customer Services Branches in its invigorated Managed Care Division. It is now apparent that at the six month reevaluation of this business process reengineering project, the organization must entertain radical change in the areas of quality management, utilization management, case management, disease management, and outcomes management. This is the arena for cost reduction for the medical center and for improved health of its beneficiaries.

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